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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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ARENT FOX LLP 1050 CONNECTICUT AVENUE, N.W. SUITE 400 WASHINGTON, DC 20036			EXAMINER TAYLOR, BARRY W	
			ART UNIT	PAPER NUMBER
			2617	
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			05/27/2008	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

DCIPDocket@arentfox.com  
IPMatters@arentfox.com  
Patent\_Mail@arentfox.com

### Office Action Summary

**Application No.**

10/782,681

**Applicant(s)**

JIANG, YUE JUN

**Examiner**

Barry W. Taylor

**Art Unit**

2617

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 March 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-54, 56-61, 64-69 and 73-84 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-54, 56-61, 64-69 and 73-84 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 April 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 61, 64-66, 69, 73-76, 78 and 84 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anvekar et al (6,603,968) in view of Ala-Luukko (2003/0050047) and Joss et al (6,684,073 hereinafter Joss) further in view of Julin (6,212,372).

Regarding claim 61. Anvekar teaches a method for supporting MSISDN numbers in an inbound roaming device, comprising:

registering the mobile in a public network which the mobile device is roaming (col. 4 lines 41-60, col. 6 line 57 – col. 7 line 14, col. 7 line 15 – col. 8 line 6);

the public network accepting the registration of the mobile device (col. 4 lines 41-60, col. 6 line 57 – col. 7 line 14, col. 7 line 15 – col. 8 line 6).

Anvekar does not show sending messages to a gateway and the gateway determining whether the mobile device is a subscriber to temporary local number service. However, Anvekar shows using global title (see MSISDN can be used as a global identifier --- col. 7 line 44) and mapping a local MSISDN (col. 6 line 57 – col. 7 line 14, col. 7 line 15 – col. 8 line 6).

Ala-Luukko also teaches IMSI in conjunction with MSISDN (paragraphs 0004 – 0005). Ala-Luukko also teaches that one IMSI can be associated with more than one MSISDN (paragraph 0023). Ala-Luukko teaches the HLR offers an interface to a gateway node to be used for requesting MSISDN number on the basis of IMSI thereby eliminating the need to copy and/or store data in two different places (paragraphs 0036 – 0043) thus enabling for real-time services to be employed from the gateway (paragraphs 0005, 0011, 0012, 0013).

It would have been obvious for any one of ordinary skill in the art at the time of invention to incorporate the signal gateway as taught by Ala-Luukko into the teachings of Anvekar thereby eliminating the need to store subscriber data in two different locations while providing a method and system that can offer and charge for real-time services as taught by Ala-Luukko (paragraphs 0005, 0011 – 0013).

Anvekar and Ala-Luukko do not use the term IMSI-H.

Joss also teaches using IMSI-H that is assigned via Home operator so subscribers can roam into areas that have no roaming agreement with the operator of their home network (col. 1 line 5 – col. 2 line 42). Joss uses IMSI-H so foreign networks can recognize mobile users as an authorized subscriber from a different network (col. 2 line 43 – col. 3 line 53, col. 5 lines 14-25, col. 6 lines 7-67, col. 7 lines 1-43, col. 8 lines 1-64, col. 9 line 30 – col. 10 line 30, col. 10 line 64 – col. 11 line 22).

It would have been obvious for any one of ordinary skill in the art at the time of invention was made to modify the invention as taught by Anvekar in view of Ala-Luukko to assign a home IMSI number as taught by Joss so that subscribers can roam freely in

a foreign network that has no roaming agreement with the subscribers home operator while saving on networking resources since only the Home Location Register is the only place subscriber data needs to be stored (Joss --- col. 2 lines 35-42, col. 5 lines 14-25, col. 6 lines 53-54, col. 10 line 64 – col. 11 line 22).

According to Applicants (see paper dated 10/31/07, page 29 line 9), Anvekar in view of Ala-Luukko and Joss do not explicitly show using a single HLR entry corresponding to the IMSI-H.

Julin teaches the IMSI-H is linked to a single entry in the HLR (abstract, col. 4 lines 33-49) to enable a more flexible use of subscriptions and subscriber identity modules (col. 1 lines 16-20, col. 1 lines 59-62, col. 2 lines 13-16, col. 2 lines 39-42).

It would have been obvious for any one of ordinary skill in the art at the time of invention was made to incorporate the teachings of Julin into the teachings of Anvekar in view of Ala-Luukko and Joss providing for a more flexible subscriber identity module that can be used in a new way (Julin col. 1 lines 16-20, col. 1 lines 59-62, col. 2 lines 39-42).

Regarding claim 64. Anvekar teaches a method for supporting MSISDN number in a roaming mobile device, comprising:

registering the mobile device in a foreign public network (col. 6 line 57 – col. 7 line 14, col. 7 line 15 – col. 8 line 6).

Anvekar does not show a signal gateway coupling a home network of the mobile device and the foreign public mobile network without using a RSPN at the foreign public mobile network and transmitting a welcome message to the mobile, wherein the

message comprised and offer to receive incoming calls from within the foreign public mobile network at preferred rates while registered with the foreign public mobile network. However, Anvekar shows using global title (see MSISDN can be used as a global identifier --- col. 7 line 44) and mapping a local MSISDN (col. 6 line 57 – col. 7 line 14, col. 7 line 15 – col. 8 line 6).

Ala-Luukko also teaches IMSI in conjunction with MSISDN (paragraphs 0004 – 0005). Ala-Luukko also teaches that one IMSI can be associated with more than one MSISDN (paragraph 0023). Ala-Luukko teaches the HLR offers an interface to a gateway node to be used for requesting MSISDN number on the basis of IMSI thereby eliminating the need to copy and/or store data in two different places (paragraphs 0036 – 0043) thus enabling for real-time services to be employed from the gateway (paragraphs 0005, 0011, 0012, 0013).

It would have been obvious for any one of ordinary skill in the art at the time of invention to incorporate the signal gateway as taught by Ala-Luukko into the teachings of Anvekar thereby eliminating the need to store subscriber data in two different locations while providing a method and system that can offer and charge for real-time services as taught by Ala-Luukko (paragraphs 0005, 0011 – 0013).

Anvekar and Ala-Luukko do not use the term IMSI-H.

Joss also teaches using IMSI-H that is assigned via Home operator so subscribers can roam into areas that have no roaming agreement with the operator of their home network (col. 1 line 5 – col. 2 line 42). Joss uses IMSI-H so foreign networks

can recognize mobile users as an authorized subscriber from a different network (col. 2 line 43 – col. 3 line 53, col. 5 lines 14-25, col. 6 lines 7-67, col. 7 lines 1-43, col. 8 lines 1-64, col. 9 line 30 – col. 10 line 30, col. 10 line 64 – col. 11 line 22).

It would have been obvious for any one of ordinary skill in the art at the time of invention was made to modify the invention as taught by Anvekar in view of Ala-Luukko to assign a home IMSI number as taught by Joss so that subscribers can roam freely in a foreign network that has no roaming agreement with the subscribers home operator while saving on networking resources since only the Home Location Register is the only place subscriber data needs to be stored (Joss --- col. 2 lines 35-42, col. 5 lines 14-25, col. 6 lines 53-54, col. 10 line 64 – col. 11 line 22).

According to Applicants (see paper dated 10/31/07, page 29 line 9), Anvekar in view of Ala-Luukko and Joss do not explicitly show using a single HLR entry corresponding to the IMSI-H.

Julin teaches the IMSI-H is linked to a single entry in the HLR (abstract, col. 4 lines 33-49) to enable a more flexible use of subscriptions and subscriber identity modules (col. 1 lines 16-20, col. 1 lines 59-62, col. 2 lines 13-16, col. 2 lines 39-42).

It would have been obvious for any one of ordinary skill in the art at the time of invention was made to incorporate the teachings of Julin into the teachings of Anvekar in view of Ala-Luukko and Joss providing for a more flexible subscriber identity module that can be used in a new way (Julin col. 1 lines 16-20, col. 1 lines 59-62, col. 2 lines 39-42).

Regarding claim 65. Anvekar teaches assigning a temporary local number to the mobile device (col. 6 line 57 – col. 7 line 14, col. 7 line 15 – col. 8 line 6).

Regarding claim 66. Anvekar teaches sending the temporary number via SMS (col. 9 lines 50-67).

Regarding claim 69. Anvekar teaches a method for supporting MSISDN numbers in a roaming device, the method comprising:

rejecting a predetermined number of registration request by the roaming mobile device to register with the VPMN (col. 6 line 57 – col. 8 line 6);

registering the roaming device with a Mobile Network, upon a registration attempt by the roaming device to register with the network (col. 6 line 57 – col. 8 line 6).

Anvekar does not show wherein a signal related to the registering is directed through a signal gateway coupling a Home Public Mobile Network (HPMN) of the mobile device and the FPMN without using a Roaming Service Provider Node (RSPN) at the FPMN; and wherein the VPMN is a non-FPMN and a non-HPMN. However, Anvekar shows using global title (see MSISDN can be used as a global identifier --- col. 7 line 44) and mapping a local MSISDN (col. 6 line 57 – col. 7 line 14, col. 7 line 15 – col. 8 line 6).

Ala-Luukko also teaches IMSI in conjunction with MSISDN (paragraphs 0004 – 0005). Ala-Luukko also teaches that one IMSI can be associated with more than one MSISDN (paragraph 0023). Ala-Luukko teaches the HLR offers an interface to a gateway node to be used for requesting MSISDN number on the basis of IMSI thereby eliminating the need to copy and/or store data in two different places (paragraphs 0036



– 0043) thus enabling for real-time services to be employed from the gateway (paragraphs 0005, 0011, 0012, 0013).

It would have been obvious for any one of ordinary skill in the art at the time of invention to incorporate the signal gateway as taught by Ala-Luukko into the teachings of Anvekar thereby eliminating the need to store subscriber data in two different locations while providing a method and system that can offer and charge for real-time services as taught by Ala-Luukko (paragraphs 0005, 0011 – 0013).

Anvekar and Ala-Luukko do not use the term IMSI-H.

Joss also teaches using IMSI-H that is assigned via Home operator so subscribers can roam into areas that have no roaming agreement with the operator of their home network (col. 1 line 5 – col. 2 line 42). Joss uses IMSI-H so foreign networks can recognize mobile users as an authorized subscriber from a different network (col. 2 line 43 – col. 3 line 53, col. 5 lines 14-25, col. 6 lines 7-67, col. 7 lines 1-43, col. 8 lines 1-64, col. 9 line 30 – col. 10 line 30, col. 10 line 64 – col. 11 line 22).

It would have been obvious for any one of ordinary skill in the art at the time of invention was made to modify the invention as taught by Anvekar in view of Ala-Luukko to assign a home IMSI number as taught by Joss so that subscribers can roam freely in a foreign network that has no roaming agreement with the subscribers home operator while saving on networking resources since only the Home Location Register is the only place subscriber data needs to be stored (Joss --- col. 2 lines 35-42, col. 5 lines 14-25, col. 6 lines 53-54, col. 10 line 64 – col. 11 line 22).

According to Applicants (see paper dated 10/31/07, page 29 line 9), Anvekar in view of Ala-Luukko and Joss do not explicitly show using a single HLR entry corresponding to the IMSI-H.

Julin teaches the IMSI-H is linked to a single entry in the HLR (abstract, col. 4 lines 33-49) to enable a more flexible use of subscriptions and subscriber identity modules (col. 1 lines 16-20, col. 1 lines 59-62, col. 2 lines 13-16, col. 2 lines 39-42).

It would have been obvious for any one of ordinary skill in the art at the time of invention was made to incorporate the teachings of Julin into the teachings of Anvekar in view of Ala-Luukko and Joss providing for a more flexible subscriber identity module that can be used in a new way (Julin col. 1 lines 16-20, col. 1 lines 59-62, col. 2 lines 39-42).

Regarding claims 73-76. Ala-Luukko teaches the gateway communicates with home network (i.e. inbound roaming --- paragraphs 0036 – 0041) or the gateway communicates to VLR (i.e. outbound --- paragraph 0040).

Regarding claim 78. Anvekar teaches the gateway supports multiple home networks (col. 6 lines 25-34).

Regarding claim 84. Joss teaches HPMN and FPMN (see Home network on left side of figure 1 and Foreign (a.k.a. visited) network on right side of figure 1).

2. Claim 79 is rejected under 35 U.S.C. 103(a) as being unpatentable over Anvekar et al (6,603,968) in view of Ala-Luukko (2003/0050047), Joss et al (6,684,073 hereinafter Joss) and Julin (6,212,372) further in view of Niepel et al (6,671,523 hereinafter Niepel).

Regarding claim 79. Anvekar in view of Ala-Luukko, Joss and Julin do not show voicemail.

Niepel teaches subscriber profiles associated with SIM wherein SIM can also be associated with two or more MSISDN numbers that are distinguished by different associated subscriber profiles (abstract).

It would have been obvious for any one of ordinary skill in the art at the time of invention to associate subscriber profiles to MSISDN numbers as taught by Niepel into the teachings of Anvekar in view of Ala-Luukko, Joss and Julin in order to provide different services to the users as taught by Niepel (abstract, col. 2 lines 10-16, col. 2 lines 47-52).

3. Claim 67 is rejected under 35 U.S.C. 103(a) as being unpatentable over Anvekar et al (6,603,968) in view of Ala-Luukko (2003/0050047), Joss et al (6,684,073 hereinafter Joss) and Julin (6,212,372) further in view of Berg et al (6,876,860 hereinafter Berg).

Regarding claim 67. Anvekar in view of Ala-Luukko, Joss and Julin do not show InsertSubscriberData protocol being used.

Berg teaches using a call back service for roaming mobile telephones (title, abstract, col. 1 lines 15 – col. 2 line 42) which simplifies roaming both internationally and between networks of different operators and creates a uniform protocol for accessing services in other GSM networks.

It would have been obvious for any one of ordinary skill in the art at the time of invention to incorporate the call back service as taught by Berg into the teachings of

Anvekar in view of Ala-Luukko, Joss and Julin in order to provide a uniform standard for roaming mobile users where the ratio of fees between VPLMN and HPLMN are reversed as taught by Berg (col. 1 lines 15-20, lines 62-65).

4. Claim 68 is rejected under 35 U.S.C. 103(a) as being unpatentable over Anvekar et al (6,603,968) in view of Ala-Luukko (2003/0050047), Niepel et al (6,671,523 hereinafter Niepel) and Joss et al (6,684,073 hereinafter Joss) further in view of Julin (6,212,372).

Regarding claim 68. Anvekar teaches a method for supporting MSISDN numbers in an outbound roaming device, comprising:

Registering the outbound roaming mobile in a public network (col. 4 lines 41-60, col. 6 line 57 – col. 7 line 14, col. 7 line 15 – col. 8 line 6).

Anvekar does not show the gateway not using RSPN.

Ala-Luukko also teaches IMSI in conjunction with MSISDN (paragraphs 0004 – 0005). Ala-Luukko also teaches that one IMSI can be associated with more than one MSISDN (paragraph 0023). Ala-Luukko teaches the HLR offers an interface to a gateway node to be used for requesting MSISDN number on the basis of IMSI thereby eliminating the need to copy and/or store data in two different places (paragraphs 0036 – 0043) thus enabling for real-time services to be employed from the gateway (paragraphs 0005, 0011, 0012, 0013).

It would have been obvious for any one of ordinary skill in the art at the time of invention to incorporate the signal gateway as taught by Ala-Luukko into the teachings of Anvekar thereby eliminating the need to store subscriber data in two different

locations while providing a method and system that can offer and charge for real-time services as taught by Ala-Luukko (paragraphs 0005, 0011 – 0013).

According to Applicants newly added claim limitations and brief remark appearing at the bottom of page 27, paper dated 5/14/2007, Anvekar and Ala-Luukko do not use the term IMSI-H.

Joss also teaches using IMSI-H that is assigned via Home operator so subscribers can roam into areas that have no roaming agreement with the operator of their home network (col. 1 line 5 – col. 2 line 42). Joss uses IMSI-H so foreign networks can recognize mobile users as an authorized subscriber from a different network (col. 2 line 43 – col. 3 line 53, col. 5 lines 14-25, col. 6 lines 7-67, col. 7 lines 1-43, col. 8 lines 1-64, col. 9 line 30 – col. 10 line 30, col. 10 line 64 – col. 11 line 22).

It would have been obvious for any one of ordinary skill in the art at the time of invention was made to modify the invention as taught by Anvekar in view of Ala-Luukko to assign a home IMSI number as taught by Joss so that subscribers can roam freely in a foreign network that has no roaming agreement with the subscribers home operator while saving on networking resources since only the Home Location Register is the only place subscriber data needs to be stored (Joss --- col. 2 lines 35-42, col. 5 lines 14-25, col. 6 lines 53-54, col. 10 line 64 – col. 11 line 22).

Anvekar in view of Ala-Luukko and Joss do not show voicemail.

Niepel teaches subscriber profiles associated with SIM wherein SIM can also be associated with two or more MSISDN numbers that are distinguished by different associated subscriber profiles (abstract).

It would have been obvious for any one of ordinary skill in the art at the time of invention to associate subscriber profiles to MSISDN numbers as taught by Niepel into the teachings of Anvekar in view of Ala-Luukko and Joss in order to provide different services to the users as taught by Niepel (abstract, col. 2 lines 10-16, col. 2 lines 47-52).

According to Applicants (see paper dated 10/31/07, page 29 line 9), Anvekar in view of Ala-Luukko, Niepel and Joss do not explicitly show using a single HLR entry corresponding to the IMSI-H.

Julin teaches the IMSI-H is linked to a single entry in the HLR (abstract, col. 4 lines 33-49) to enable a more flexible use of subscriptions and subscriber identity modules (col. 1 lines 16-20, col. 1 lines 59-62, col. 2 lines 13-16, col. 2 lines 39-42).

It would have been obvious for any one of ordinary skill in the art at the time of invention was made to incorporate the teachings of Julin into the teachings of Anvekar in view of Ala-Luukko, Niepel and Joss providing for a more flexible subscriber identity module that can be used in a new way (Julin col. 1 lines 16-20, col. 1 lines 59-62, col. 2 lines 39-42).

5. Claims 1-7, 10-22, 25-35, 38-46, 49-54, 56-57, 60, 77 and 80-83 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anvekar et al (6,603,968) in view of Molne (6,014,561), Ala-Luukko (2003/0050047), and Joss et al (6,684,073 hereinafter Joss) further in view of Julin (6,212,372).

Regarding claim 1. Anvekar teaches a communication system (title, abstract) comprising:

a mobile device including a SIM and a single IMSI (col. 1 line 41 – col. 2 line 18, col. 4 lines 41-60, col. 6 line 57 – col. 7 line 14, col. 7 line 15 – col. 8 line 6);

a first MSISDN for use in a first public mobile network (col. 4 lines 41-60, col. 6 line 57 – col. 7 line 14, col. 7 line 15 – col. 8 line 6).

Anvekar does not show more than one MSISDN in conjunction with same SIM.

Molne teaches the SIM comprises multiple MSISDNs (see SIM card in figure 4, col. 8 lines 14-32).

It would have been obvious for any one of ordinary skill in the art at the time of invention to incorporate the teachings of Molne into the teachings of Anvekar in order to provide a method and apparatus for over the air activation of multiple mode/band radio telephone as disclosed by Molne (abstract, col. 2 line 66 – col. 3 line 2).

Anvekar in view of Molne do not show signal gateway using only one IMSI.

Ala-Luukko also teaches IMSI in conjunction with MSISDN (paragraphs 0004 – 0005). Ala-Luukko also teaches that one IMSI can be associated with more than one MSISDN (paragraph 0023). Ala-Luukko teaches the HLR offers an interface to a gateway node to be used for requesting MSISDN number on the basis of IMSI thereby eliminating the need to copy and/or store data in two different places (paragraphs 0036 – 0043) thus enabling for real-time services to be employed from the gateway (paragraphs 0005, 0011, 0012, 0013).

It would have been obvious for any one of ordinary skill in the art at the time of invention to incorporate the signal gateway as taught by Ala-Luukko into the teachings of Anvekar in view of Molne thereby eliminating the need to store subscriber data in two

different locations while providing a method and system that can offer and charge for real-time services as taught by Ala-Luukko (paragraphs 0005, 0011 – 0013).

Anvekar and Ala-Luukko do not use the term IMSI-H.

Joss also teaches using IMSI-H that is assigned via Home operator so subscribers can roam into areas that have no roaming agreement with the operator of their home network (col. 1 line 5 – col. 2 line 42). Joss uses IMSI-H so foreign networks can recognize mobile users as an authorized subscriber from a different network (col. 2 line 43 – col. 3 line 53, col. 5 lines 14-25, col. 6 lines 7-67, col. 7 lines 1-43, col. 8 lines 1-64, col. 9 line 30 – col. 10 line 30, col. 10 line 64 – col. 11 line 22).

It would have been obvious for any one of ordinary skill in the art at the time of invention was made to modify the invention as taught by Anvekar in view of Molne and Ala-Luukko to assign a home IMSI number as taught by Joss so that subscribers can roam freely in a foreign network that has no roaming agreement with the subscribers home operator while saving on networking resources since only the Home Location Register is the only place subscriber data needs to be stored (Joss --- col. 2 lines 35-42, col. 5 lines 14-25, col. 6 lines 53-54, col. 10 line 64 – col. 11 line 22).

According to Applicants (see paper dated 10/31/07, page 29 line 9), Anvekar in view of Ala-Luukko and Joss do not explicitly show using a single HLR entry corresponding to the IMSI-H.

Julin teaches the IMSI-H is linked to a single entry in the HLR (abstract, col. 4 lines 33-49) to enable a more flexible use of subscriptions and subscriber identity modules (col. 1 lines 16-20, col. 1 lines 59-62, col. 2 lines 13-16, col. 2 lines 39-42).



It would have been obvious for any one of ordinary skill in the art at the time of invention was made to incorporate the teachings of Julin into the teachings of Anvekar in view of Ala-Luukko and Joss providing for a more flexible subscriber identity module that can be used in a new way (Julin col. 1 lines 16-20, col. 1 lines 59-62, col. 2 lines 39-42).

Regarding claim 17. Anvekar teaches a communication system (title, abstract), comprising:

means for wireless communications (figure 5, col. 6 line 25 – col. 8 line 6);

means for associating a single subscriber identity with the means for wireless communications (figure 5, col. 6 line 25 – col. 8 line 6).

Anvekar does not show first and second telephone number in conjunction with a single subscriber identity.

Molne teaches the SIM comprises multiple MSISDNs (see SIM card in figure 4, col. 8 lines 14-32).

It would have been obvious for any one of ordinary skill in the art at the time of invention to incorporate the teachings of Molne into the teachings of Anvekar in order to provide a method and apparatus for over the air activation of multiple mode/band radio telephone as disclosed by Molne (abstract, col. 2 line 66 – col. 3 line 2).

Anvekar in view of Molne do not show signal gateway using only one IMSI.

Ala-Luukko also teaches IMSI in conjunction with MSISDN (paragraphs 0004 – 0005). Ala-Luukko also teaches that one IMSI can be associated with more than one

MSISDN (paragraph 0023). Ala-Luukko teaches the HLR offers an interface to a gateway node to be used for requesting MSISDN number on the basis of IMSI thereby eliminating the need to copy and/or store data in two different places (paragraphs 0036 – 0043) thus enabling for real-time services to be employed from the gateway (paragraphs 0005, 0011, 0012, 0013).

It would have been obvious for any one of ordinary skill in the art at the time of invention to incorporate the signal gateway as taught by Ala-Luukko into the teachings of Anvekar in view of Molne thereby eliminating the need to store subscriber data in two different locations while providing a method and system that can offer and charge for real-time services as taught by Ala-Luukko (paragraphs 0005, 0011 – 0013).

Anvekar and Ala-Luukko do not use the term IMSI-H.

Joss also teaches using IMSI-H that is assigned via Home operator so subscribers can roam into areas that have no roaming agreement with the operator of their home network (col. 1 line 5 – col. 2 line 42). Joss uses IMSI-H so foreign networks can recognize mobile users as an authorized subscriber from a different network (col. 2 line 43 – col. 3 line 53, col. 5 lines 14-25, col. 6 lines 7-67, col. 7 lines 1-43, col. 8 lines 1-64, col. 9 line 30 – col. 10 line 30, col. 10 line 64 – col. 11 line 22).

It would have been obvious for any one of ordinary skill in the art at the time of invention was made to modify the invention as taught by Anvekar in view of Molne and Ala-Luukko to assign a home IMSI number as taught by Joss so that subscribers can roam freely in a foreign network that has no roaming agreement with the subscribers

home operator while saving on networking resources since only the Home Location Register is the only place subscriber data needs to be stored (Joss --- col. 2 lines 35-42, col. 5 lines 14-25, col. 6 lines 53-54, col. 10 line 64 – col. 11 line 22).

According to Applicants (see paper dated 10/31/07, page 29 line 9), Anvekar in view of Ala-Luukko and Joss do not explicitly show using a single HLR entry corresponding to the IMSI-H.

Julin teaches the IMSI-H is linked to a single entry in the HLR (abstract, col. 4 lines 33-49) to enable a more flexible use of subscriptions and subscriber identity modules (col. 1 lines 16-20, col. 1 lines 59-62, col. 2 lines 13-16, col. 2 lines 39-42).

It would have been obvious for any one of ordinary skill in the art at the time of invention was made to incorporate the teachings of Julin into the teachings of Anvekar in view of Ala-Luukko and Joss providing for a more flexible subscriber identity module that can be used in a new way (Julin col. 1 lines 16-20, col. 1 lines 59-62, col. 2 lines 39-42).

Regarding claim 18. Anvekar teaches a system comprising a wireless client device that includes:

one SIM having one IMSI (col. 1 line 41 – col. 2 line 18, col. 4 lines 41-60, col. 6 line 57 – col. 7 line 14, col. 7 line 15 – col. 8 line 6).

Anvekar does not show more than two MSISDN in conjunction with one SIM having only one IMSI.

Molne teaches the SIM comprises multiple MSISDNs (see SIM card in figure 4, col. 8 lines 14-32).

It would have been obvious for any one of ordinary skill in the art at the time of invention to incorporate the teachings of Molne into the teachings of Anvekar in order to provide a method and apparatus for over the air activation of multiple mode/band radio telephone as disclosed by Molne (abstract, col. 2 line 66 – col. 3 line 2).

Anvekar in view of Molne do not show signal gateway using only one IMSI.

Ala-Luukko also teaches IMSI in conjunction with MSISDN (paragraphs 0004 – 0005). Ala-Luukko also teaches that one IMSI can be associated with more than one MSISDN (paragraph 0023). Ala-Luukko teaches the HLR offers an interface to a gateway node to be used for requesting MSISDN number on the basis of IMSI thereby eliminating the need to copy and/or store data in two different places (paragraphs 0036 – 0043) thus enabling for real-time services to be employed from the gateway (paragraphs 0005, 0011, 0012, 0013).

It would have been obvious for any one of ordinary skill in the art at the time of invention to incorporate the signal gateway as taught by Ala-Luukko into the teachings of Anvekar in view of Molne thereby eliminating the need to store subscriber data in two different locations while providing a method and system that can offer and charge for real-time services as taught by Ala-Luukko (paragraphs 0005, 0011 – 0013).

Anvekar and Ala-Luukko do not use the term IMSI-H.

Joss also teaches using IMSI-H that is assigned via Home operator so subscribers can roam into areas that have no roaming agreement with the operator of their home network (col. 1 line 5 – col. 2 line 42). Joss uses IMSI-H so foreign networks

can recognize mobile users as an authorized subscriber from a different network (col. 2 line 43 – col. 3 line 53, col. 5 lines 14-25, col. 6 lines 7-67, col. 7 lines 1-43, col. 8 lines 1-64, col. 9 line 30 – col. 10 line 30, col. 10 line 64 – col. 11 line 22).

It would have been obvious for any one of ordinary skill in the art at the time of invention was made to modify the invention as taught by Anvekar in view of Molne and Ala-Luukko to assign a home IMSI number as taught by Joss so that subscribers can roam freely in a foreign network that has no roaming agreement with the subscribers home operator while saving on networking resources since only the Home Location Register is the only place subscriber data needs to be stored (Joss --- col. 2 lines 35-42, col. 5 lines 14-25, col. 6 lines 53-54, col. 10 line 64 – col. 11 line 22).

According to Applicants (see paper dated 10/31/07, page 29 line 9), Anvekar in view of Ala-Luukko and Joss do not explicitly show using a single HLR entry corresponding to the IMSI-H.

Julin teaches the IMSI-H is linked to a single entry in the HLR (abstract, col. 4 lines 33-49) to enable a more flexible use of subscriptions and subscriber identity modules (col. 1 lines 16-20, col. 1 lines 59-62, col. 2 lines 13-16, col. 2 lines 39-42).

It would have been obvious for any one of ordinary skill in the art at the time of invention was made to incorporate the teachings of Julin into the teachings of Anvekar in view of Ala-Luukko and Joss providing for a more flexible subscriber identity module that can be used in a new way (Julin col. 1 lines 16-20, col. 1 lines 59-62, col. 2 lines 39-42).

Regarding claim 19. Anvekar teaches a device comprising:

Mobile device includes a single SIM and a single IMSI (col. 1 line 41 – col. 2 line 18, col. 4 lines 41-60, col. 6 line 57 – col. 7 line 14, col. 7 line 15 – col. 8 line 6).

Anvekar does not show SIM having two MSISDN.

Molne teaches the SIM comprises multiple MSISDNs (see SIM card in figure 4, col. 8 lines 14-32).

It would have been obvious for any one of ordinary skill in the art at the time of invention to incorporate the teachings of Molne into the teachings of Anvekar in order to provide a method and apparatus for over the air activation of multiple mode/band radio telephone as disclosed by Molne (abstract, col. 2 line 66 – col. 3 line 2).

Anvekar in view of Molne do not show signal gateway using only one IMSI and one SIM.

Ala-Luukko also teaches IMSI in conjunction with MSISDN (paragraphs 0004 – 0005). Ala-Luukko also teaches that one IMSI can be associated with more than one MSISDN (paragraph 0023). Ala-Luukko teaches the HLR offers an interface to a gateway node to be used for requesting MSISDN number on the basis of IMSI thereby eliminating the need to copy and/or store data in two different places (paragraphs 0036 – 0043) thus enabling for real-time services to be employed from the gateway (paragraphs 0005, 0011, 0012, 0013).

It would have been obvious for any one of ordinary skill in the art at the time of invention to incorporate the signal gateway as taught by Ala-Luukko into the teachings of Anvekar in view of Molne thereby eliminating the need to store subscriber data in two

different locations while providing a method and system that can offer and charge for real-time services as taught by Ala-Luukko (paragraphs 0005, 0011 – 0013).

Anvekar and Ala-Luukko do not use the term IMSI-H.

Joss also teaches using IMSI-H that is assigned via Home operator so subscribers can roam into areas that have no roaming agreement with the operator of their home network (col. 1 line 5 – col. 2 line 42). Joss uses IMSI-H so foreign networks can recognize mobile users as an authorized subscriber from a different network (col. 2 line 43 – col. 3 line 53, col. 5 lines 14-25, col. 6 lines 7-67, col. 7 lines 1-43, col. 8 lines 1-64, col. 9 line 30 – col. 10 line 30, col. 10 line 64 – col. 11 line 22).

It would have been obvious for any one of ordinary skill in the art at the time of invention was made to modify the invention as taught by Anvekar in view of Molne and Ala-Luukko to assign a home IMSI number as taught by Joss so that subscribers can roam freely in a foreign network that has no roaming agreement with the subscribers home operator while saving on networking resources since only the Home Location Register is the only place subscriber data needs to be stored (Joss --- col. 2 lines 35-42, col. 5 lines 14-25, col. 6 lines 53-54, col. 10 line 64 – col. 11 line 22).

According to Applicants (see paper dated 10/31/07, page 29 line 9), Anvekar in view of Ala-Luukko and Joss do not explicitly show using a single HLR entry corresponding to the IMSI-H.

Julin teaches the IMSI-H is linked to a single entry in the HLR (abstract, col. 4 lines 33-49) to enable a more flexible use of subscriptions and subscriber identity modules (col. 1 lines 16-20, col. 1 lines 59-62, col. 2 lines 13-16, col. 2 lines 39-42).

It would have been obvious for any one of ordinary skill in the art at the time of invention was made to incorporate the teachings of Julin into the teachings of Anvekar in view of Ala-Luukko and Joss providing for a more flexible subscriber identity module that can be used in a new way (Julin col. 1 lines 16-20, col. 1 lines 59-62, col. 2 lines 39-42).

Regarding claim 30. Anvekar teaches a method for supporting multiple MSISDN in a mobile device, comprising:

routing communication between the mobile device and first network using first MSISDN wherein the mobile device includes a SIM with a single IMSI (col. 1 line 41 – col. 2 line 18, col. 4 lines 41-60, col. 6 line 57 – col. 7 line 14, col. 7 line 15 – col. 8 line 6);

mapping the first MSISDN to second MSISDN that is associated with second network (col. 6 line 57 – col. 7 line 14, col. 7 line 15 – col. 8 line 6).

Anvekar does not show SIM in conjunction with two MSISDN.

Molne teaches the SIM comprises multiple MSISDNs (see SIM card in figure 4, col. 8 lines 14-32).

It would have been obvious for any one of ordinary skill in the art at the time of invention to incorporate the teachings of Molne into the teachings of Anvekar in order to



provide a method and apparatus for over the air activation of multiple mode/band radio telephone as disclosed by Molne (abstract, col. 2 line 66 – col. 3 line 2).

Anvekar in view of Molne do not show routing using only one IMS.

Ala-Luukko also teaches IMSI in conjunction with MSISDN (paragraphs 0004 – 0005). Ala-Luukko also teaches that one IMSI can be associated with more than one MSISDN (paragraph 0023). Ala-Luukko teaches the HLR offers an interface to a gateway node to be used for requesting MSISDN number on the basis of IMSI thereby eliminating the need to copy and/or store data in two different places (paragraphs 0036 – 0043) thus enabling for real-time services to be employed from the gateway (paragraphs 0005, 0011, 0012, 0013).

It would have been obvious for any one of ordinary skill in the art at the time of invention to incorporate the signal gateway as taught by Ala-Luukko into the teachings of Anvekar in view of Molne thereby eliminating the need to store subscriber data in two different locations while providing a method and system that can offer and charge for real-time services as taught by Ala-Luukko (paragraphs 0005, 0011 – 0013).

Anvekar and Ala-Luukko do not use the term IMSI-H.

Joss also teaches using IMSI-H that is assigned via Home operator so subscribers can roam into areas that have no roaming agreement with the operator of their home network (col. 1 line 5 – col. 2 line 42). Joss uses IMSI-H so foreign networks can recognize mobile users as an authorized subscriber from a different network (col. 2

line 43 – col. 3 line 53, col. 5 lines 14-25, col. 6 lines 7-67, col. 7 lines 1-43, col. 8 lines 1-64, col. 9 line 30 – col. 10 line 30, col. 10 line 64 – col. 11 line 22).

It would have been obvious for any one of ordinary skill in the art at the time of invention was made to modify the invention as taught by Anvekar in view of Molne and Ala-Luukko to assign a home IMSI number as taught by Joss so that subscribers can roam freely in a foreign network that has no roaming agreement with the subscribers home operator while saving on networking resources since only the Home Location Register is the only place subscriber data needs to be stored (Joss --- col. 2 lines 35-42, col. 5 lines 14-25, col. 6 lines 53-54, col. 10 line 64 – col. 11 line 22).

According to Applicants (see paper dated 10/31/07, page 29 line 9), Anvekar in view of Ala-Luukko and Joss do not explicitly show using a single HLR entry corresponding to the IMSI-H.

Julin teaches the IMSI-H is linked to a single entry in the HLR (abstract, col. 4 lines 33-49) to enable a more flexible use of subscriptions and subscriber identity modules (col. 1 lines 16-20, col. 1 lines 59-62, col. 2 lines 13-16, col. 2 lines 39-42).

It would have been obvious for any one of ordinary skill in the art at the time of invention was made to incorporate the teachings of Julin into the teachings of Anvekar in view of Ala-Luukko and Joss providing for a more flexible subscriber identity module that can be used in a new way (Julin col. 1 lines 16-20, col. 1 lines 59-62, col. 2 lines 39-42).

Regarding claim 39. Computer claim 39 is rejected for the same reasons as method claim 30 since the recited method would perform the claimed program steps.

Regarding claim 40. Anvekar teaches a communication system comprising:  
a mobile device including a SIM and a single IMSI (col. 1 line 41 – col. 2 line 18, col. 4 lines 41-60, col. 6 line 57 – col. 7 line 14, col. 7 line 15 – col. 8 line 6);  
a first MSISDN for use in a first network (col. 1 line 41 – col. 2 line 18, col. 4 lines 41-60, col. 6 line 57 – col. 7 line 14, col. 7 line 15 – col. 8 line 6);  
a plurality of second MSISDN for using in at least one second mobile network (col. 1 line 41 – col. 2 line 18, col. 4 lines 41-60, col. 6 line 57 – col. 7 line 14, col. 7 line 15 – col. 8 line 6);

Anvekar does not show SIM having two or more MSISDN.

Molne teaches the SIM comprises multiple MSISDNs (see SIM card in figure 4, col. 8 lines 14-32).

It would have been obvious for any one of ordinary skill in the art at the time of invention to incorporate the teachings of Molne into the teachings of Anvekar in order to provide a method and apparatus for over the air activation of multiple mode/band radio telephone as disclosed by Molne (abstract, col. 2 line 66 – col. 3 line 2).

Anvekar in view of Molne do not show routing using only one IMS.

Ala-Luukko also teaches IMSI in conjunction with MSISDN (paragraphs 0004 – 0005). Ala-Luukko also teaches that one IMSI can be associated with more than one MSISDN (paragraph 0023). Ala-Luukko teaches the HLR offers an interface to a gateway node to be used for requesting MSISDN number on the basis of IMSI thereby eliminating the need to copy and/or store data in two different places (paragraphs 0036

– 0043) thus enabling for real-time services to be employed from the gateway (paragraphs 0005, 0011, 0012, 0013).

It would have been obvious for any one of ordinary skill in the art at the time of invention to incorporate the signal gateway as taught by Ala-Luukko into the teachings of Anvekar in view of Molne thereby eliminating the need to store subscriber data in two different locations while providing a method and system that can offer and charge for real-time services as taught by Ala-Luukko (paragraphs 0005, 0011 – 0013).

Anvekar and Ala-Luukko do not use the term IMSI-H.

Joss also teaches using IMSI-H that is assigned via Home operator so subscribers can roam into areas that have no roaming agreement with the operator of their home network (col. 1 line 5 – col. 2 line 42). Joss uses IMSI-H so foreign networks can recognize mobile users as an authorized subscriber from a different network (col. 2 line 43 – col. 3 line 53, col. 5 lines 14-25, col. 6 lines 7-67, col. 7 lines 1-43, col. 8 lines 1-64, col. 9 line 30 – col. 10 line 30, col. 10 line 64 – col. 11 line 22).

It would have been obvious for any one of ordinary skill in the art at the time of invention was made to modify the invention as taught by Anvekar in view of Molne and Ala-Luukko to assign a home IMSI number as taught by Joss so that subscribers can roam freely in a foreign network that has no roaming agreement with the subscribers home operator while saving on networking resources since only the Home Location

Register is the only place subscriber data needs to be stored (Joss --- col. 2 lines 35-42, col. 5 lines 14-25, col. 6 lines 53-54, col. 10 line 64 – col. 11 line 22).

According to Applicants (see paper dated 10/31/07, page 29 line 9), Anvekar in view of Ala-Luukko and Joss do not explicitly show using a single HLR entry corresponding to the IMSI-H.

Julin teaches the IMSI-H is linked to a single entry in the HLR (abstract, col. 4 lines 33-49) to enable a more flexible use of subscriptions and subscriber identity modules (col. 1 lines 16-20, col. 1 lines 59-62, col. 2 lines 13-16, col. 2 lines 39-42).

It would have been obvious for any one of ordinary skill in the art at the time of invention was made to incorporate the teachings of Julin into the teachings of Anvekar in view of Ala-Luukko and Joss providing for a more flexible subscriber identity module that can be used in a new way (Julin col. 1 lines 16-20, col. 1 lines 59-62, col. 2 lines 39-42).

Regarding claim 49. Anvekar teaches a method for supporting multiple MSISDN in a mobile device, comprising:

routing communication between the mobile device and a first network using first MSISDN associated with the first network, wherein the mobile device includes a SIM with single IMSI (col. 1 line 41 – col. 2 line 18, col. 4 lines 41-60, col. 6 line 57 – col. 7 line 14, col. 7 line 15 – col. 8 line 6);

mapping the first MSISDN to one of a plurality of second MSISDN that are associated with a second network (col. 1 line 41 – col. 2 line 18, col. 4 lines 41-60, col. 6 line 57 – col. 7 line 14, col. 7 line 15 – col. 8 line 6).

Anvekar does not show SIM having two or more MSISDN.

Molne teaches the SIM comprises multiple MSISDNs (see SIM card in figure 4, col. 8 lines 14-32).

It would have been obvious for any one of ordinary skill in the art at the time of invention to incorporate the teachings of Molne into the teachings of Anvekar in order to provide a method and apparatus for over the air activation of multiple mode/band radio telephone as disclosed by Molne (abstract, col. 2 line 66 – col. 3 line 2).

Anvekar in view of Molne do not show routing using only one IMS.

Ala-Luukko also teaches IMSI in conjunction with MSISDN (paragraphs 0004 – 0005). Ala-Luukko also teaches that one IMSI can be associated with more than one MSISDN (paragraph 0023). Ala-Luukko teaches the HLR offers an interface to a gateway node to be used for requesting MSISDN number on the basis of IMSI thereby eliminating the need to copy and/or store data in two different places (paragraphs 0036 – 0043) thus enabling for real-time services to be employed from the gateway (paragraphs 0005, 0011, 0012, 0013).

It would have been obvious for any one of ordinary skill in the art at the time of invention to incorporate the signal gateway as taught by Ala-Luukko into the teachings of Anvekar in view of Molne thereby eliminating the need to store subscriber data in two different locations while providing a method and system that can offer and charge for real-time services as taught by Ala-Luukko (paragraphs 0005, 0011 – 0013).

Anvekar and Ala-Luukko do not use the term IMSI-H.

Joss also teaches using IMSI-H that is assigned via Home operator so subscribers can roam into areas that have no roaming agreement with the operator of their home network (col. 1 line 5 – col. 2 line 42). Joss uses IMSI-H so foreign networks can recognize mobile users as an authorized subscriber from a different network (col. 2 line 43 – col. 3 line 53, col. 5 lines 14-25, col. 6 lines 7-67, col. 7 lines 1-43, col. 8 lines 1-64, col. 9 line 30 – col. 10 line 30, col. 10 line 64 – col. 11 line 22).

It would have been obvious for any one of ordinary skill in the art at the time of invention was made to modify the invention as taught by Anvekar in view of Molne and Ala-Luukko to assign a home IMSI number as taught by Joss so that subscribers can roam freely in a foreign network that has no roaming agreement with the subscribers home operator while saving on networking resources since only the Home Location Register is the only place subscriber data needs to be stored (Joss --- col. 2 lines 35-42, col. 5 lines 14-25, col. 6 lines 53-54, col. 10 line 64 – col. 11 line 22).

According to Applicants (see paper dated 10/31/07, page 29 line 9), Anvekar in view of Ala-Luukko and Joss do not explicitly show using a single HLR entry corresponding to the IMSI-H.

Julin teaches the IMSI-H is linked to a single entry in the HLR (abstract, col. 4 lines 33-49) to enable a more flexible use of subscriptions and subscriber identity modules (col. 1 lines 16-20, col. 1 lines 59-62, col. 2 lines 13-16, col. 2 lines 39-42).

It would have been obvious for any one of ordinary skill in the art at the time of invention was made to incorporate the teachings of Julin into the teachings of Anvekar in view of Ala-Luukko and Joss providing for a more flexible subscriber identity module

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that can be used in a new way (Julin col. 1 lines 16-20, col. 1 lines 59-62, col. 2 lines 39-42).

Regarding claim 77. Anvekar teaches a method for routing communication, the method comprising:

assigning a first MSISDN to a mobile device in a first network, the mobile device having SIM and a single IMSI (col. 1 line 41 – col. 2 line 18, col. 4 lines 41-60, col. 6 line 57 – col. 7 line 14, col. 7 line 15 – col. 8 line 6);

assigning a second MSISDN to the mobile device for use in a second network (col. 1 line 41 – col. 2 line 18, col. 4 lines 41-60, col. 6 line 57 – col. 7 line 14, col. 7 line 15 – col. 8 line 6).

Anvekar does not show SIM having two or more MSISDN.

Molne teaches the SIM comprises multiple MSISDNs (see SIM card in figure 4, col. 8 lines 14-32).

It would have been obvious for any one of ordinary skill in the art at the time of invention to incorporate the teachings of Molne into the teachings of Anvekar in order to provide a method and apparatus for over the air activation of multiple mode/band radio telephone as disclosed by Molne (abstract, col. 2 line 66 – col. 3 line 2).

Anvekar in view of Molne do not show routing using only one IMS.

Ala-Luukko also teaches IMSI in conjunction with MSISDN (paragraphs 0004 – 0005). Ala-Luukko also teaches that one IMSI can be associated with more than one MSISDN (paragraph 0023). Ala-Luukko teaches the HLR offers an interface to a gateway node to be used for requesting MSISDN number on the basis of IMSI thereby



eliminating the need to copy and/or store data in two different places (paragraphs 0036 – 0043) thus enabling for real-time services to be employed from the gateway (paragraphs 0005, 0011, 0012, 0013).

It would have been obvious for any one of ordinary skill in the art at the time of invention to incorporate the signal gateway as taught by Ala-Luukko into the teachings of Anvekar in view of Molne thereby eliminating the need to store subscriber data in two different locations while providing a method and system that can offer and charge for real-time services as taught by Ala-Luukko (paragraphs 0005, 0011 – 0013).

Anvekar and Ala-Luukko do not use the term IMSI-H.

Joss also teaches using IMSI-H that is assigned via Home operator so subscribers can roam into areas that have no roaming agreement with the operator of their home network (col. 1 line 5 – col. 2 line 42). Joss uses IMSI-H so foreign networks can recognize mobile users as an authorized subscriber from a different network (col. 2 line 43 – col. 3 line 53, col. 5 lines 14-25, col. 6 lines 7-67, col. 7 lines 1-43, col. 8 lines 1-64, col. 9 line 30 – col. 10 line 30, col. 10 line 64 – col. 11 line 22).

It would have been obvious for any one of ordinary skill in the art at the time of invention was made to modify the invention as taught by Anvekar in view of Molne and Ala-Luukko to assign a home IMSI number as taught by Joss so that subscribers can roam freely in a foreign network that has no roaming agreement with the subscribers home operator while saving on networking resources since only the Home Location

Register is the only place subscriber data needs to be stored (Joss --- col. 2 lines 35-42, col. 5 lines 14-25, col. 6 lines 53-54, col. 10 line 64 – col. 11 line 22).

According to Applicants (see paper dated 10/31/07, page 29 line 9), Anvekar in view of Ala-Luukko and Joss do not explicitly show using a single HLR entry corresponding to the IMSI-H.

Julin teaches the IMSI-H is linked to a single entry in the HLR (abstract, col. 4 lines 33-49) to enable a more flexible use of subscriptions and subscriber identity modules (col. 1 lines 16-20, col. 1 lines 59-62, col. 2 lines 13-16, col. 2 lines 39-42).

It would have been obvious for any one of ordinary skill in the art at the time of invention was made to incorporate the teachings of Julin into the teachings of Anvekar in view of Ala-Luukko and Joss providing for a more flexible subscriber identity module that can be used in a new way (Julin col. 1 lines 16-20, col. 1 lines 59-62, col. 2 lines 39-42).

Regarding claims 2-3, 41-42. Molne teaches that SIM can have more than one MSISDN (see SIM card in figure 4, col. 8 lines 14-32).

Regarding claims 4-5, 20, 33, 43-44, 52. Anvekar teaches the MSISDN can be used in local network or used in roaming network (col. 4 lines 41-60, col. 6 line 57 – col. 7 line 14, col. 7 line 15 – col. 8 line 6).

Regarding claims 6, 21, 34, 45, 56. Anvekar teaches mapping MSISDN numbers (col. 6 line 57 – col. 7 line 14, col. 7 line 15 – col. 8 line 6).

Regarding claims 7, 22, 35, 46, 57. Anvekar teaches one component of the at least one signal gateway provides at least one of a HLR, a visited VLR (col. 4 lines 25-

26, col. 6 line 57 – col. 7 line 14, a GMSC, a short message service center (col. 9 lines 39-59), and a service node in at least one of the first network and second network (see either nodes 520A or 520B in figure 5).

Regarding claims 10-15, 25-28. Anvekar teaches Signaling System 7 (col. 12 line 67).

Regarding claims 16, 29, 38, 60. Anvekar teaches at least one of cellular telephones (item 180 in figure 1).

Regarding claims 31 and 50. Anvekar teaches SIM in conjunction with IMSI (col. 4 lines 41-60).

Regarding claims 32 and 51. Anvekar in view of Molne do not teach routing in conjunction with SIM having only single IMSI.

Ala-Luukko also teaches IMSI in conjunction with MSISDN (paragraphs 0004 – 0005). Ala-Luukko also teaches that one IMSI can be associated with more than one MSISDN (paragraph 0023). Ala-Luukko teaches the HLR offers an interface to a gateway node to be used for requesting MSISDN number on the basis of IMSI thereby eliminating the need to copy and/or store data in two different places (paragraphs 0036 – 0043) thus enabling for real-time services to be employed from the gateway (paragraphs 0005, 0011, 0012, 0013).

It would have been obvious for any one of ordinary skill in the art at the time of invention to incorporate the signal gateway as taught by Ala-Luukko into the teachings of Anvekar in view of Molne thereby eliminating the need to store subscriber data in two

different locations while providing a method and system that can offer and charge for real-time services as taught by Ala-Luukko (paragraphs 0005, 0011 – 0013).

Regarding claim 53. Anvekar teaches wherein the IMSI is associated with the first MSISDN number in the first network, and wherein the plurality of second MSISDN are in a designated range of numbers defined in the second network (col. 6 line 57 – col. 7 line 14, col. 7 line 15 – col. 8 line 6).

Regarding claim 54. Anvekar in view of Molne do not teach gateway serving as a HLR.

Ala-Luukko also teaches IMSI in conjunction with MSISDN (paragraphs 0004 – 0005). Ala-Luukko also teaches that one IMSI can be associated with more than one MSISDN (paragraph 0023). Ala-Luukko teaches the HLR offers an interface to a gateway node to be used for requesting MSISDN number on the basis of IMSI thereby eliminating the need to copy and/or store data in two different places (paragraphs 0036 – 0043) thus enabling for real-time services to be employed from the gateway (paragraphs 0005, 0011, 0012, 0013).

It would have been obvious for any one of ordinary skill in the art at the time of invention to incorporate the signal gateway as taught by Ala-Luukko into the teachings of Anvekar in view of Molne thereby eliminating the need to store subscriber data in two different locations while providing a method and system that can offer and charge for real-time services as taught by Ala-Luukko (paragraphs 0005, 0011 – 0013).

Regarding claims 80-83. Joss teaches HPMN and FPMN (see Home network on left side of figure 1 and Foreign (a.k.a. visited) network on right side of figure 1).

6. Claims 8-9, 23-24, 36-37, 47-48, 58-59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anvekar et al (6,603,968) in view of Molne (6,014,561), Ala-Luukko (2003/0050047), Joss et al (6,684,073 hereinafter Joss) and Julin (6,212,372) further in view of Berg et al (6,876,860 hereinafter Berg).

Regarding claims 8-9, 23-24, 36-37, 47-48, and 58-59. Anvekar in view of Molne, Ala-Luukko, Joss and Julin do not use the term loop-back.

Berg teaches using a call back service for roaming mobile telephones (title, abstract, col. 1 lines 15 – col. 2 line 42) which simplifies roaming both internationally and between networks of different operators and creates a uniform protocol for accessing services in other GSM networks.

It would have been obvious for any one of ordinary skill in the art at the time of invention to incorporate the call back service as taught by Berg into the teachings of Anvekar in view of Molne, Ala-Luukko, Joss and Julin in order to provide a uniform standard for roaming mobile users where the ratio of fees between VPLMN and HPLMN are reversed as taught by Berg (col. 1 lines 15-20, lines 62-65).

#### ***Response to Arguments***

7. Applicant's arguments filed 3/10/2008 have been fully considered but they are not persuasive.

a) Applicants continue to argue that prior art of record does not teach a HLR including a first and second MSISDN (see paper dated 3/10/2008, amendments to claims and remark on page 30).

The Examiner respectfully disagrees. Molne clearly shows SIM comprises multiple MSISDNs (see SIM card in figure 4 and col. 8 lines 14-32). Ala-Luukko also teaches IMSI in conjunction with MSISDN (paragraphs 0004 – 0005). Ala-Luukko also teaches that one IMSI can be associated with more than one MSISDN (paragraph 0023). Ala-Luukko teaches the HLR offers an interface to a gateway node to be used for requesting MSISDN number on the basis of IMSI thereby eliminating the need to copy and/or store data in two different places (paragraphs 0036 – 0043) thus enabling for real-time services to be employed from the gateway (paragraphs 0005, 0011, 0012, 0013). Julin does not teach away from first and second MSISDN associated with one IMSI (see at least figure 4 and col. 5 lines 19-67 wherein the home database is extended to include two MSISDNs associated with one IMSI which allows subscribers to personalize where calls are to be forwarded).

### ***Conclusion***

**8. THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Barry W. Taylor, telephone number (571) 272-7509, who is available Monday-Thursday, 6:30am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost, can be reached at (571) 272-7872. The central facsimile phone number for this group is **571-273-8300**.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group 2600 receptionist whose telephone number is (571) 272-2600, the 2600 Customer Service telephone number is (571) 272-2600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Centralized Delivery Policy: For patent related correspondence, hand carry deliveries must be made to the Customer Service Window (now located at the Randolph Building, 401 Dulany Street, Alexandria, VA 22314), and facsimile transmissions must be sent to the central fax number **(571-273-8300)**.

/Barry W Taylor/  
Primary Examiner, Art Unit 2617